

Abstract

Transmitting and receiving device for a
multipoint-to-point network

The object of the invention is to provide a synchronization procedure for a multipoint-to-point CDMA network (2), which minimizes the influence on the information transmission. Instead of interleaving communications and synchronization signals timewise, a simultaneous emission is proposed, in which the synchronization signals are superimposed on the communications signals. The synchronization signals are coded with a special synchronization code (6), which does not correspond to the CDMA communications code of the information signals, e.g. Barker code. In addition, the synchronization signals are sent at a lower amplitude compared with the communications signals. The synchronization signals are also modulated (7) prior to sending, in particular using alternating multiplication by +1 and -1. On the receiving side (3), the synchronization signals are detected by demodulation (12; 15), correlation (13; 16) and subsequent accumulation. The transmission capacity for the communications signals is maximized by this procedure and the influence of the synchronization signals on the communications signals minimized.

(Fig. 1)